

ting HbI and OXI according to the formulae of:

$$\text{HbI} = (\text{As}_{28} - \text{As}_{20}) + (\text{As}_{50} - \text{As}_{28}) + (\text{As}_{72} - \text{As}_{50}) - (\text{As}_{86} - \text{As}_{72})$$

$$\text{OXI} = ((\text{As}_{50} - \text{As}_0 - 0) + (\text{As}_{72} - \text{As}_{60})) / \text{HbI},$$

and

SO₂ is calculated from the formula:

$$\text{SO}_2 = 100 - (\text{OXI} - \text{OXI}_0) / (\text{OXI}_{100} - \text{OXI}_0),$$

wherein,

OXI₀ and OXI₁₀₀ are empirically determined for OXI and SO₂ values of 0% and 100% in skin.--

REMARKS

Prior to an examination on the merits of the above-identified patent application, please enter the foregoing preliminary amendments.

Claims 1-28, 33 and 34 are pending in the above-identified patent application. No amendments were entered during the P.C.T. international phase. Claims 1, 18, 27, 28 and 33 are presented in independent form.

By the present amendment, Claims 29-32 have been cancelled. Claims 33 and 34 recite the subject matter of prior Claims 31 and 32. The multiple dependency of Claim 10 has been deleted, and other formal amendments to the claims have been entered. Sectional headings have also been added to the Specification. The application is now in condition for a full examination on the merits. (A marked-up version of the

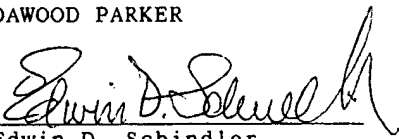
present claim amendments is attached to this Preliminary Amendment.)

Accordingly, an early examination on the merits and allowance are, therefore, respectfully requested and earnestly solicited.

Respectfully submitted,

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haemoglobin.

19. (Amended) A method according to Claim 18 characterised in that the method [includes the use of] comprises using a sensor device [of claim 1.] having light source means for emitting a light beam, photodetector means for receiving the light beam after passing through or being reflected within living tissue and arranged for providing signals corresponding to intensities of a respective wavelength of light received by the photodetector means.

27. (Amended) A method of monitoring of SIDS in infants [which comprises] comprising the steps of attaching a calibrated sensor [according to claim 1] to the skin of a patient and emitting white light, and detecting and [a] measuring the scattered light[.], said calibrated sensor comprising light source means for emitting a light beam, photodetector means for receiving the light beam after passing through or being reflected within living tissue and arranged for providing signals corresponding to intensities of a respective wavelength of light received by the photodetector means.

Please cancel Claims 29 and 30, and substitute the following claims therefor:

--33. A computer program for carrying out a method comprising the steps of collecting data, processing said data

MARKED-UP AMENDMENTS-2

collected and displaying SO₂ and SaO₂ levels based on the data collected.

34. A computer program according to Claim 33, wherein said processing said data collected includes use of the algorithm:

$$SO_2 = \frac{[HbO_2] \times 100}{[HbO_2] + [Hb]}$$

wherein,

reflected absorptions (A) at wavelengths of 500 nm, 528 nm, 550 nm, 560 nm, 572 nm and 586 nm are used for calculating HbI and OXI according to the formulae of:

$$HbI = (A_{528} - A_{520}) + (A_{550} - A_{528}) + (A_{572} - A_{550}) - (A_{586} - A_{572})$$

$$OXI = ((A_{550} - A_{500}) + (A_{572} - A_{560})) / HbI,$$

and

SO₂ is calculated from the formula:

$$SO_2 = 100 - (OXI - OXI_0) / (OXI_{100} - OXI_0),$$

wherein,

OXI₀ and OXI₁₀₀ are empirically determined for OXI and SO₂ values of 0% and 100% in skin.--